

PATENT COOPERATION TREATY

PCT

NOTIFICATION CONCERNING
SUBMISSION OR TRANSMITTAL
OF PRIORITY DOCUMENT

(PCT Administrative Instructions, Section 411)

From the INTERNATIONAL BUREAU

To:

ITOH, TADAHIKO
32nd Floor, Yebisu Garden Place
Tower, 20-3, Ebisu 4-chome
Shibuya-ku, Tokyo 150-6032
Japan

Date of mailing (day/month/year) 20 May 2003 (20.05.03)	
Applicant's or agent's file reference R02239 PCT	IMPORTANT NOTIFICATION
International application No. PCT/JP03/02586	International filing date (day/month/year) 05 March 2003 (05.03.03)
International publication date (day/month/year) Not yet published	Priority date (day/month/year) 06 March 2002 (06.03.02)
Applicant RICOH COMPANY, LTD. et al	

1. The applicant is hereby notified of the date of receipt (except where the letters "NR" appear in the right-hand column) by the International Bureau of the priority document(s) relating to the earlier application(s) indicated below. Unless otherwise indicated by an asterisk appearing next to a date of receipt, or by the letters "NR", in the right-hand column, the priority document concerned was submitted or transmitted to the International Bureau in compliance with Rule 17.1(a) or (b).
2. This updates and replaces any previously issued notification concerning submission or transmittal of priority documents.
3. An asterisk(*) appearing next to a date of receipt, in the right-hand column, denotes a priority document submitted or transmitted to the International Bureau but not in compliance with Rule 17.1(a) or (b). In such a case, **the attention of the applicant is directed to Rule 17.1(c)** which provides that no designated Office may disregard the priority claim concerned before giving the applicant an opportunity, upon entry into the national phase, to furnish the priority document within a time limit which is reasonable under the circumstances.
4. The letters "NR" appearing in the right-hand column denote a priority document which was not received by the International Bureau or which the applicant did not request the receiving Office to prepare and transmit to the International Bureau, as provided by Rule 17.1(a) or (b), respectively. In such a case, **the attention of the applicant is directed to Rule 17.1(c)** which provides that no designated Office may disregard the priority claim concerned before giving the applicant an opportunity, upon entry into the national phase, to furnish the priority document within a time limit which is reasonable under the circumstances.

<u>Priority date</u>	<u>Priority application No.</u>	<u>Country or regional Office or PCT receiving Office</u>	<u>Date of receipt of priority document</u>
06 Marc 2002 (06.03.02)	2002-60640	JP	05 May 2003 (05.05.03)

The International Bureau of WIPO
34, chemin des Colombettes
1211 Geneva 20, Switzerland

Facsimile No. (41-22) 338.70.10

Authorized officer

Jutaporn SUNDER (Fax 338 7010)

Telephone No. (41-22) 338 9564

Corrected version / Version corrigée

From the INTERNATIONAL BUREAU

PCTNOTICE INFORMING THE APPLICANT OF THE
COMMUNICATION OF THE INTERNATIONAL
APPLICATION TO THE DESIGNATED OFFICES

(PCT Rule 47.1(c), first sentence)

To:

ITOH, TADAHIKO
32nd Floor, Yebisu Garden Place Tower, 20-3, Ebisu
4-chome
Shibuya-ku, Tokyo 150-6032
JAPON

Date of mailing (day/month/year)

12 September 2003 (12.09.03)

Applicant's or agent's file reference

R02239 PCT

IMPORTANT NOTICE

International application No.

PCT/JP03/02586

International filing date (day/month/year)

05 March 2003 (05.03.03)

Priority date (day/month/year)

06 March 2002 (06.03.02)

Applicant

RICOH COMPANY, LTD. et al

1. Notice is hereby given that the International Bureau has **communicated**, as provided in Article 20, the international application to the following designated Offices on the date indicated above as the date of mailing of this notice:

CN, KR, US

In accordance with Rule 47.1(c), third sentence, those Offices will accept the present notice as conclusive evidence that the communication of the international application has duly taken place on the date of mailing indicated above and no copy of the international application is required to be furnished by the applicant to the designated Office(s).

2. The following designated Offices have waived the requirement for such a communication at this time:

None

The communication will be made to those Offices only upon their request. Furthermore, those Offices do not require the applicant to furnish a copy of the international application (Rule 49.1(a-bis)).

3. Enclosed with this notice is a copy of the international application as published by the International Bureau on 12 September 2003 (12.09.03) under No. WO 03/075280

4. **TIME LIMITS for filing a demand for international preliminary examination and for entry into the national phase**

The applicable time limit for entering the national phase will, **subject to what is said in the following paragraph**, be **30 MONTHS** from the priority date, not only in respect of any elected Office if a demand for international preliminary examination is filed before the expiration of 19 months from the priority date, but also in respect of any designated Office, in the absence of filing of such demand, where Article 22(1) as modified with effect from 1 April 2002 applies in respect of that designated Office. For further details, see *PCT Gazette* No. 44/2001 of 1 November 2001, pages 19926, 19932 and 19934, as well as the *PCT Newsletter*, October and November 2001 and February 2002 issues.

In practice, **time limits other than the 30-month time limit** will continue to apply, for various periods of time, in respect of certain designated or elected Offices. For **regular updates on the applicable time limits** (20, 21, 30 or 31 months, or other time limit), Office by Office, refer to the *PCT Gazette*, the *PCT Newsletter* and the *PCT Applicant's Guide*, Volume II, National Chapters, all available from WIPO's Internet site, at <http://www.wipo.int/pc/en/index.html>.

For filing a demand for international preliminary examination, see the *PCT Applicant's Guide*, Volume I/A, Chapter IX. Only an applicant who is a national or resident of a PCT Contracting State which is bound by Chapter II has the right to file a demand for international preliminary examination (at present, all PCT Contracting States are bound by Chapter II).

It is the applicant's sole responsibility to monitor all these time limits.

The International Bureau of WIPO
34, chemin des Colombettes
1211 Geneva 20, Switzerland

Authorized officer

Gijsbertus Beijer - Carlos Roy

Facsimile No.(41-22) 740.14.35

Telephone No.(41-22) 338.91.11

PATENT COOPERATION TREATY

From the
INTERNATIONAL PRELIMINARY EXAMINING AUTHORITY

PCT

To: **ITOH, TADAHIKO**

**32ND FLOOR, YEBISU GARDEN
PLACE TOWER, 20-3, EBISU
4-CHOME, SHIBUYA-KU TOKYO
150-6032 JAPAN**

NOTIFICATION OF TRANSMITTAL OF INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Rule 71.1)

Date of mailing
(day/month/year)

13. 7. 2004

Applicant's or agent's file reference
R02239 PCT

IMPORTANT NOTIFICATION

International application No.
PCT/JP 03/02586

International filing date (day/month/year)
05.03.2003

Priority date (day/month/year)
06.03.2002

Applicant

RICOH COMPANY, LTD.

1. The applicant is hereby notified that this International Preliminary Examining Authority transmits herewith the international preliminary examination report and its annexes, if any, established on the international application.
2. A copy of the report and its annexes, if any, is being transmitted to the International Bureau for communication to all the elected Offices.
3. Where required by any of the elected Offices, the International Bureau will prepare an English translation of the report (but not of any annexes) and will transmit such translation to those Offices.

4. REMINDER

The applicant must enter the national phase before each elected Office by performing certain acts (filing translations and paying national fees) within 30 months from the priority date (or later in some Offices) (Article 39(1)) (see also the reminder sent by the International Bureau with Form PCT/IB/301).

Where a translation of the international application must be furnished to an elected Office, that translation must contain a translation of any annexes to the international preliminary examination report. It is the applicant's responsibility to prepare and furnish such translation directly to each elected Office concerned.

For further details on the applicable time limits and requirements of the elected Offices, see Volume II of the PCT Applicant's Guide.

Name and mailing address of the IPEA/JP

Japan Patent Office

3-4-3, Kasumigaseki, Chiyoda-ku, Tokyo 100-8915, Japan

Authorized officer

Commissioner of the Patent Office

Telephone No. +81-3-3581-1101 Ext. 3546

5N

9554

ATTENTIONS

1. Demand for copy of documents

Copy of the documents described in the international preliminary examination report and not described in the international search report.

An applicant can request the copy of these cited documents to the Japan Patent Office, however, Japan Patent Information Organization also services sales of the copy of these cited documents. Those who request copying of the cited documents should pay attention to the following points.

[Application Method]

- (1) As for Patent (Utility Model, Design) Gazette, the following points shall be defined clearly.

Types of patent, utility model, and design

Fiscal year and number of publication of application or publication of unexamined application (or patent number, registration number)

Necessary number of paper sheets

- (2) As for documents except for the gazette, the following points are required attention.

Be sure to attach the copy of the international preliminary examination report (which shall be returned).

[Application and Reference]

〒135-0016

4-1-7 Toyo Koto-ku, Tokyo

Sato Daiya Building

Foundation of Japan Patent Information Organization

Information Processing Department

Copy Service section

TEL: 03-3508-2313

Note) The period for requesting the copy of the documents to Japanese Patent Office is set to 7 years from the international application date.

2. It is necessary to submit the copy of international application (except for cases of already transmitted from the International Bureau) and its prescribed translation, and to pay the national fee. Respective countries set different periods so as to be required attention. (See Treaty Article 22, Article 39, and Article 64 (2) (a) (i))

PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference R02239 PCT	FOR FURTHER ACTION See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)	
International application No. PCT/JP 03/02586	International filing date (day/month/year) 05.03.2003	Priority date (day/month/year) 06.03.2002
International Patent Classification (IPC) or national classification and IPC Int.Cl. G11C11/40		
Applicant RICOH COMPANY, LTD.		

1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.

2. This REPORT consists of a total of 3 sheets, including this cover sheet.

☒ This report is also accompanied by ANNEXES, i.e., sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).

These annexes consist of a total of 8 sheets.

3. This report contains indications relating to the following items:

- I ☒ Basis of the report
- II ☐ Priority
- III ☐ Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- IV ☐ Lack of unity of invention
- V ☒ Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- VI ☐ Certain documents cited
- VII ☐ Certain defects in the international application
- VIII ☐ Certain observations on the international application

Date of submission of the demand <div style="text-align: center; font-size: 1.2em;">06.10.2003</div>	Date of completion of this report <div style="text-align: center; font-size: 1.2em;">24.06.2004</div>	
Name and mailing address of the IPEA/JP <div style="text-align: center; font-weight: bold;">Japan Patent Office</div> 3-4-3, Kasumigaseki, Chiyoda-ku, Tokyo 100-8915, Japan	Authorized officer <div style="text-align: center; font-weight: bold;">TOSHIYA KATO</div> Telephone No. +81-3-3581-1101 Ext. 3546	5N 9554

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

PCT/JP 03/02586

I Basis of the report**1. With regard to the elements of the international application:***

- ☐ the international application as originally filed
- ☒ the description:
pages 1-35, as originally filed
pages _____, filed with the demand
pages _____, filed with the letter of _____
- ☒ the claims:
Nos. 2-4, 6-8, as originally filed
Nos. 1, 5, as amended (together with any statement) under Article 19
Nos. _____, filed with the demand
Nos. _____, filed with the letter of _____
- ☒ the drawings:
sheets/figs 1/21-21/21, as originally filed
sheets/figs _____, filed with the demand
sheets/figs _____, filed with the letter of _____
- ☐ the sequence listing part of the description:
pages _____, as originally filed
pages _____, filed with the demand
pages _____, filed with the letter of _____

2. With regard to the language, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language _____ which is:

- ☐ the language of a translation furnished for the purposes of international search (under Rule 23.1(b)).
- ☐ the language of publication of the international application (under Rule 48.3(b)).
- ☐ the language of the translation furnished for the purposes of international preliminary examination (under Rules 55.2 and/or 55.3).

3. With regard to any nucleotide and/or amino acid sequence disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- ☐ contained in the international application in written form.
- ☐ filed together with the international application in computer readable form.
- ☐ furnished subsequently to this Authority in written form.
- ☐ furnished subsequently to this Authority in computer readable form.
- ☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
- ☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. ☒ The amendments have resulted in the cancellation of:

- ☐ the description, pages _____
- ☒ the claims, Nos. 9-12
- ☐ the drawings, sheets/figs _____

5. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).**

* Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rules 70.16 and 70.17).

** Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.

V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**1. Statement**

Novelty (N)	Claims	<u>1 - 8</u>	YES
	Claims		NO
Inventive step (IS)	Claims		YES
	Claims	<u>1 - 8</u>	NO
Industrial applicability (IA)	Claims	<u>1 - 8</u>	YES
	Claims		NO

2. Citations and explanations (Rule 70.7)

<The following document has been considered for the purpose of this report:>

D1 = JP 10-117292 A (HEWLETT-PACKARD CO) 1998.05.06

D2 = JP 2001-93281 A (SANYO ELECTRIC CO LTD) 2001.04.06

D3 = JP 5-113928 A (FUJI ELECTRIC CO LTD) 1993.05.07

D4 = JP 10-320973 A (NEC CORP) 1998.12.04

Clame 1,3,5,7

The subject matter of claim 1,3,5,7 do not appear to involve an inventive step in view of the document D1 cited in the ISR and the document D2 cited in the same.

The document D1 is considered to represent (regarded as being) the closest prior art for (to) the subject matter of claim 1,5. Document D1 discloses that the eight values used for interpolation in the conversion to one dimension of the CMYK color space from the RGB color space can be simultaneously accessed in the memory.

The inventions disclosed in D1 and D2 share the problem in the memory which can access more than one data simultaneously. The person skilled in the art would easily conceive the idea of applying the technical feature that two of the word lines provided in the respective rows of the memory cells to rise simultaneously employed in figure 5 of D2 to the invention disclosed in D1 to solve that problem.

Claims 3,7 are dependent on claim 1,5 and as such also (do not) meet the requirements with respect to novelty and inventive step.

Clame 2,6

The subject matter of claim 2,6 do not appear to involve an inventive step in view of the document 1-3 cited in the ISR.

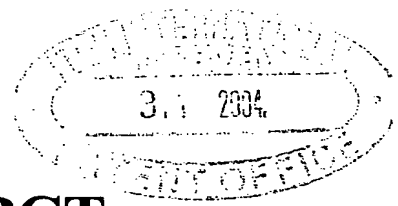
The selectors that are provided between the memory array and the input/output port appears to be known from D3.

Clame 4,8

The subject matter of claim 4,8 do not appear to involve an inventive step in view of the document 1,2,4 cited in the ISR.

The write per bit function which carries out the limitation of writing toward the specific bit appears to be known from D4.

PATENT COOPERATION TREATY



From the
INTERNATIONAL PRELIMINARY EXAMINING AUTHORITY

PCT

WRITTEN OPINION

(PCT Rule 66)

To:

ITOH, TADAHIKO

**32ND FLOOR, YEBISU GARDEN
PLACE TOWER, 20-3, EBISU
4-CHOME, SHIBUYA-KU TOKYO
150-6032 JAPAN**

Date of mailing
(day/month/year)

09.3.2004

Applicant's or agent's file reference

R02239 PCT

REPLY DUE

within **2 months** from
the above date of mailing

International application No.

PCT/JP 03/02586

International filing date (day/month/year)

05.03.2003

Priority date (day/month/year)

06.03.2002

International Patent Classification (IPC) or both national classification and IPC

Int.Cl. **G11C11/40**

Applicant

RICOH COMPANY, LTD.

1. This written opinion is the 1 (first, etc.) drawn by this International Preliminary Examining Authority.

2. This opinion contains indications relating to the following items:

- I ☒ Basis of the opinion
- II ☐ Priority
- III ☐ Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- IV ☐ Lack of unity of invention
- V ☒ Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- VI ☐ Certain documents cited
- VII ☐ Certain defects in the international application
- VIII ☐ Certain observations on the international application

3. The applicant is hereby invited to reply to this opinion.

When? See the time limit indicated above. The applicant may, before the expiration of that time limit, request this Authority to grant an extension, see Rule 66.2(d).

How? By submitting a written reply, accompanied, where appropriate, by amendments, according to Rule 66.3. For the form and the language of the amendments, see Rules 66.8 and 66.9.

Also For an additional opportunity to submit amendments, see Rule 66.4.
For the examiner's obligation to consider amendments and/or arguments, see Rule 66.4bis.
For an informal communication with the examiner, see Rule 66.6.

If no reply is filed, the international preliminary examination report will be established on the basis of this opinion.

4. The final date by which the international preliminary examination report must be established according to Rule 69.2 is:

06.07.2004

Name and mailing address of the IPEA/JP

Japan Patent Office

3-4-3, Kasumigaseki, Chiyoda-ku, Tokyo 100-8915, Japan

Authorized officer

TOSHIYA KATO

Telephone No. +81-3-3581-1101 Ext. 3525

5N 9554

I Basis of the opinion

1. With regard to the elements of the international application:*

- ☐ the international application as originally filed
- ☒ the description:
 pages 1-35 , as originally filed
 pages _____ , filed with the demand
 pages _____ , filed with the letter of _____
- ☒ the claims:
 Nos. 2-4, 6-8 , as originally filed
 Nos. 1, 5 , as amended (together with any statement) under Article 19
 Nos. _____ , filed with the demand
 Nos. _____ , filed with the letter of _____
- ☒ the drawings:
 sheets/figs 1/21-21/21 , as originally filed
 sheets/figs _____ , filed with the demand
 sheets/figs _____ , filed with the letter of _____
- ☐ the sequence listing part of the description:
 pages _____ , as originally filed
 pages _____ , filed with the demand
 pages _____ , filed with the letter of _____

2. With regard to the language, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.
 These elements were available or furnished to this Authority in the following language _____ which is:

- ☐ the language of a translation furnished for the purposes of international search (under Rule 23.1(b)).
- ☐ the language of publication of the international application (under Rule 48.3(b)).
- ☐ the language of the translation furnished for the purposes of international preliminary examination (under Rules 55.2 and/or 55.3).

3. With regard to any nucleotide and/or amino acid sequence disclosed in the international application, the written opinion was drawn on the basis of the sequence listing:

- ☐ contained in the international application in printed form.
- ☐ filed together with the international application in computer readable form.
- ☐ furnished subsequently to this Authority in written form.
- ☐ furnished subsequently to this Authority in computer readable form.
- ☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
- ☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. ☒ The amendments have resulted in the cancellation of:

- ☐ the description, pages _____
- ☒ the claims, Nos. 9-12
- ☐ the drawings, sheets/figs _____

5. ☐ This opinion has been drawn as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).

* Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this opinion as "originally filed."

V. Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Claims	<u>1 - 8</u>	YES
	Claims		NO
Inventive step (IS)	Claims		YES
	Claims	<u>1 - 8</u>	NO
Industrial applicability (IA)	Claims	<u>1 - 8</u>	YES
	Claims		NO

2. Citations and explanations

<The following document has been considered for the purpose of this report:>

D1 = JP 10-117292 A (HEWLETT-PACKARD CO) 1998.05.06

D2 = JP 2001-93281 A (SANYO ELECTRIC CO LTD) 2001.04.06

D3 = JP 5-113928 A (FUJI ELECTRIC CO LTD) 1993.05.07

D4 = JP 10-320973 A (NEC CORP) 1998.12.04

Clame 1,3,5,7

The subject matter of claim 1,3,5,7 do not appear to involve an inventive step in view of the document D1 cited in the ISR and the document D2 cited in the same.

The document D1 is considered to represent (regarded as being) the closest prior art for (to) the subject matter of claim 1,5. Document D1 discloses that the eight values used for interpolation in the conversion to one dimension of the CMYK color space from the RGB color space can be simultaneously accessed in the memory.

The inventions disclosed in D1 and D2 share the problem in the memory which can access more than one data simultaneously. The person skilled in the art would easily conceive the idea of applying the technical feature that two of the word lines provided in the respective rows of the memory cells to rise simultaneously employed in figure 5 of D2 to the invention disclosed in D1 to solve that problem.

Claims 3,7 are dependent on claim 1,5 and as such also (do not) meet the requirements with respect to novelty and inventive step.

Clame 2,6

The subject matter of claim 2,6 do not appear to involve an inventive step in view of the document 1-3 cited in the ISR.

The selectors that are provided between the memory array and the input/output port appears to be known from D3.

Clame 4,8

The subject matter of claim 4,8 do not appear to involve an inventive step in view of the document 1,2,4 cited in the ISR.

The write per bit function which carries out the limitation of writing toward the specific bit appears to be known from D4.

ATTENTION

Forms and Preparation Points for Documents to be Submitted

Forms for a written reply and a written amendment shall be prepared in conformity to Article 62 (Form 23) and Article 31 (Form 15) of Enforcement Regulations of Law Concerning the International Application of the Patent Cooperation Treaty and Related Matters.

[Remarks]

1. The paper sheet used is set to Row A, No. 4 (horizontal writing 21cm, 29.7cm) of the Japanese Industrial Standards; only one side of a flexible, strong, smooth, lusterless, and durable paper sheet with no fold is used with its shorter side at the top; and unnecessary characters, signs, frame lines, ruled lines, etc. shall not be written on this paper.
2. The paper shall be free of creases and tears.
3. Margins shall be set to at least 2cm at the upper edge, the right edge, and the bottom edge of the paper sheet, and 2.5cm at the left edge. In principle, the margins shall not exceed 4cm at the upper edge and the left edge, or 3cm at the right edge and the bottom edge. In these cases, the margins are left completely blank. The document number (provided it is described in the request) may be added in the margin corner of the upper edge and within 1.5cm of the upper edge.
4. The written reply shall be a typed or printed manuscript so that an arbitrary number of copies may be directly made by photograph, electrostatic method, photographic offset, or microfilm.
5. In all the paper sheets of the written reply, serial numbers starting from 1 in Arabic numerals shall be added in the center of the top or bottom edge of the paper sheet (except for the margin parts).
6. In cases of a typed manuscript, the space between the lines shall be set to at least 5mm. In case of using Roman letters in Remarks 11 and 14, the width shall be set to 1.5 letters.
7. Items mentioned shall be written in characters of No. 4 type (Roman letters used for Remarks 11 and 14 are set to not less than 0.21cm in height in capital letters), wherein the color used shall be dark and non-fading, and the characters shall fulfill the requirements prescribed in Remark 4.
8. In the column "Indication of International Application," where an applicant has already received the notification of the international application number from the Patent Office, the number shall be described in such a manner as "PCT/JPO/○○○○○○," where the applicant has not yet received the notification of the international application number, the date of submitting the international application shall be described in the order of date, month and year in such a manner as "international application submitted on ○○.○○.○○" (as for the year, only the last two figures of the Christian Era shall be described), and the document number (provided it is described in the request) shall be also described therein.
9. The "Name of Applicant" shall be described as the full name in the order of family name and first name in the case of an individual person; in the case of a juridical body, the name shall be described.
10. The "Address" shall be described in detail such as "Japan, prefecture, county, village, major article, minor article, plot number, and house number" and the postal code shall be also stated.
11. The transliteration of the name and the address of the applicant or their translation into English shall be also added thereto using Roman letters.
12. In the column "Nationality," the name of the country of the applicant or the representative shall be described.
13. In the column "Address," the name of the country in which the applicant or the representative resides shall be described.
14. In the case of describing the name of a country, the name of the country designated by the Commissioner shall be written in Japanese and English.
15. In the column "Representative," the name of the representative shall be described and the applicable one from among "lawyer," "patent attorney," and "legal representative" shall be described before the name of the representative.
16. Where a representative is stated, the seal of the applicant is not necessary; if there is no representative, the column "Representative" need not be provided.
17. In each paper sheet, erasure, correction, overwriting, and inserted lines are not permitted in principle.
18. The paper sheets for the written reply shall be filed with, for example, a clip so as to be easily separated or re-filed.
19. In the "Address," only one address of each applicant, representative, attorney, or sub-attorney shall be described.
20. In the column "Sub-Attorney," the name of the sub-attorney shall be described and the applicable name from among "lawyer" or "patent attorney" shall be described before the name of the sub-attorney.
21. Where a sub-attorney is stated, the seal of an attorney is not necessary; if

there is no sub-attorney, the column "Sub-attorney" need not be provided.

22. The Christian Era or Gregorian Calendar shall be used for the date. Figures of the day, figures of the month, and last two figures of the year shall be expressed in Arabic numerals respectively in this order, and a period shall be added after the figures of the day and the month (for example, March 30th, 1978 shall be written as "30.03.78"). When using another era or calendar, the Christian Era or Gregorian Calendar shall be added thereto.

Form 23 (Related to Article 62)

REPLY (ARGUMENT)

To: Examiner of the Patent Office

1. Identification of the International Application

2. Applicant (Common Representative)

Name: seal

Address:

Country of Nationality:

Country of residence:

3. Agent

Name: seal

Address

4. Date of Notification

5. Subject Matter of Reply (Argument)

6. List of Attached Documents

[Remarks]

1. In case an amendment is made pursuant to the order in the provisions of Article 6 of the Patent Law, the title shall be set to "AMENDMENT (amendment based upon the order in the provisions of Article 6 of said Law)"; in case an amendment is made pursuant to the provisions of Article 11 of said Law, the title shall be set to "AMENDMENT (amendment based upon the provisions of Article 11 of said Law)"; in case an amendment is made pursuant to the order in the provisions of Item 2 of Article 1 of the Patent Law Enforcement Order, the title shall be set to "AMENDMENT (amendment based upon the order in the provisions of Item 2 of Article 1 of said Order)"; in case an amendment is made pursuant to the provisions of Item 1 of Article 27-3, the title shall be set to "AMENDMENT (amendment based upon the provisions of Item 1 of Article 27-3)"; in case an amendment is made pursuant to the order in the provisions of Item 1 of Article 28, the title shall be set to "AMENDMENT (amendment based upon the order in the provisions of Item 1 of Article 28)"; in case a flexible disk is submitted pursuant to the provisions of Item 3 of Article 50-3, the title shall be set to "SUBMISSION OF FLEXIBLE DISK Based Upon the Provisions of Item 3 of Article 50-3"; in case a flexible disk is submitted pursuant to the order in the provisions of Item 5 of Article 50-3, the title shall be set to "SUBMISSION OF FLEXIBLE DISK Based upon the Order in the Provisions of Item 3 of Article 50-3"; in case a document describing the sequence listing is submitted pursuant to the order in the provisions of Item 5 of Article 50-3, the title shall be set to "SUBMISSION OF DOCUMENT DESCRIBING SEQUENCE LISTING Based upon the Order in the Provisions of Item 5 of Article 50-3"; and in case an amendment is made pursuant to the order in the provisions of Item 8 of Article 50-3, the title shall be set to "AMENDMENT (amendment based upon the order in the provisions of Item 8 of Article 50-3)".
2. If an examiner of the Patent Office has given an opportunity for submitting a written reply or its amendment, the reply or the amendment shall be submitted to said examiner of the Patent Office, and it shall be submitted to the Commissioner of the Patent Office for any other cases.
3. In the column "Object of Amendment," the name of the document to be amended and the passage to be amended shall be described in such a manner as "Request II, Column of Applicant."
4. In the column "Contents of Amendment," "as per an accompanying sheet" shall be described and the matters to be amended shall be pointed out, and a replacement paper sheet for the amendment shall be appended. However, where the whole of the paper sheet is deleted as a result of the amendment, where the amendment is made pursuant to the order in the provisions of Article 6 of the Patent Law, Item 2 of Article 1 of the Patent Law Enforcement Order, Item 1 of Article 28 or Item 8 of Article 50-33, or where the amendment is made pursuant to the provisions of Item 1 of Article 27-3, there is no need to use a replacement paper sheet if the matters related to the amendment can be easily re-written in the original text. Where a replacement paper sheet for an amendment provided for in Article 11 of the Patent Law is appended, and the matter related to the amendment is a deletion or an addition of only a part of a passage or a minor correction, the amendment may be made in the copy of the written amendment that has been submitted before instead of using a replacement paper sheet provided it does not affect the neatness and direct copying of the paper sheet.
5. When the scope of claims is amended, a replacement paper sheet

describing the scope of claims related to said amendment as follows shall be appended.

- a) When a new item is added to the scope of claims, the number given to the last item of the scope of claims before being amended shall be described before the item to be added in such a manner as "○ (added)."
- b) When any item of the scope of claims is deleted, the number given to the item of the scope of claims to be deleted shall be described in such a manner as "○ (deleted)."
- c) When the scope of claims is amended without increasing or decreasing the number of items of the scope of claims, the same number as that for the item of the scope of claims before being amended shall be given to the amended item of the scope of claims in such a manner as "○ after being amended."

6. When a flexible disk is submitted pursuant to the provisions of Item 3 of Article 30-3 or when a flexible disk is submitted pursuant to the order in the provisions of Item 5 of Article 60-3, descriptions shall be made as follows.

- a) In the column "7. List of Attached Documents," the following items shall be described.

5. List of Attached Documents

- (1) Flexible disk that records code data concerning sequence listing: 1 piece
- (2) Statement: 1 copy
- (3) Document describing information about the recording method, etc. of a flexible disk: 1 copy

- b) In principle, the "Statement" shall be prepared pursuant to the sample shown below. The item "Indication of International Application" shall be described pursuant to Remark 15 described hereunder.

(Sample)

STATEMENT

To: the Commissioner of the Patent Office

I hereby declare that the base sequence and amino acid sequence recorded in the flexible disk attached to this document have faithfully encoded the base sequence and amino acid sequence described in the specification without making any change of the contents.

Day month, year

Indication of International Application

Title of the Invention

Applicant or Agent

- c) "Document describing information about the recording method, etc. of a flexible disk" shall be made, in principle, by providing and describing such items as "Name of Applicant," "Name of Agent," "Indication of International Application," "Title of the Invention," "Character Code Used," "Name of a File Recording the Sequence," and "Person to be Contacted (phone number and name of the person in charge)."
- d) Columns "5. Object of Amendment" and "6. Contents of Amendment" shall not be provided.

7. When a document describing the sequence listing pursuant to the order in the provisions of Item 5 of Article 60-3, the following item shall be described in the column "7. List of Attached Documents," and columns "5. Object of Amendment" and "6. Contents of Amendment" shall not be provided.

5. List of Attached Documents

- (1) Document describing the sequence listing: 1 copy

8. The paper sheet used is set to Row A, No. 4 (horizontal writing 21cm, 29.7cm) of the Japanese Industrial Standards; only one side of a flexible, strong, smooth, lusterless, and durable paper sheet with no fold is used with its shorter side at the top; and unnecessary characters, signs, frame lines, ruled lines, etc. shall not be written on this paper.
9. The paper shall be free of creases and tears.
10. Margins shall be set to at least 2cm at the upper edge, the right edge, and the bottom edge of the paper sheet, and 2.5cm at the left edge. In principle, the margins shall not exceed 4cm at the upper edge and the left edge, or 3cm at the right edge and the bottom edge. In these cases, the margins are left completely blank. The document number (provided it is described in the request) may be added in the margin corner of the upper edge and within 1.5cm of the upper edge.
11. The written amendment shall be a typed or printed manuscript so that an arbitrary number of copies may be directly made by photograph, electrostatic method, photographic offset, or microfilm.
12. In all the paper sheets of the written amendment, serial numbers starting from 1 in Arabic numerals shall be added in the center of the top or bottom edge of the paper sheet (except for the margin parts).
13. In cases of a typed manuscript, the space between the lines shall be set to

at least 5mm. In case of using Roman letters in Remarks 11 and 14, the width shall be set to 1.5 letters.

14. Items mentioned shall be written in characters of No. 4 type (Roman letters used for Remarks 11 and 14 are set to not less than 0.21cm in height in capital letters), wherein the color used shall be dark and non-fading, and the characters shall fulfill the requirements prescribed in Remark 9.
15. In the column "Indication of International Application," where an applicant has already received the notification of the international application number from the Patent Office, the number shall be described in such a manner as "PCT/JPO○○○○○○," where the applicant has not yet received the notification of the international application number, the date of submitting the international application shall be described in the order of date, month and year in such a manner as "international application submitted on ○○.○○.○○" (as for the year, only the last two figures of the Christian Era shall be described), and the document number (provided it is described in the request) shall be also described therein.
16. The "Name of Applicant" shall be described as the full name in the order of family name and first name in the case of an individual person; in the case of a juridical body, the name shall be described.
17. The "Address" shall be described in detail such as "Japan, prefecture, county, village, major article, minor article, plot number, and house number" and the postal code shall be also stated.
18. The transliteration of the name and the address of the applicant or their translation into English shall be also added thereto using Roman letters.
19. In the column "Nationality," the name of the country of the applicant or the representative shall be described.
20. In the column "Address," the name of the country of the applicant or the representative shall be described.
21. In the case of describing the name of a country, the name of the country designated by the Commissioner shall be written in Japanese and English.
22. In the column "Representative," the name of the representative shall be described and the applicable one from among "lawyer," "patent attorney," and "legal representative" shall be described before the name of the representative.
23. Where a representative is stated, the seal of the applicant is not necessary; if there is no representative, the column "Representative" need not be provided.
24. In each paper sheet, erasure, correction, overwriting, and inserted lines are not permitted in principle.
25. The paper sheets for the written reply shall be filed with, for example, a clip so as to be easily separated or re-filed.
26. In the "Address," only one address of each applicant, representative, attorney, or sub-attorney shall be described.
27. In the column "Sub-Attorney," the name of the sub-attorney shall be described and the applicable name from among "lawyer" or "patent attorney" shall be described before the name of the sub-attorney.
28. Where a sub-attorney is stated, the seal of an attorney is not necessary; if there is no sub-attorney, the column "Sub-attorney" need not be provided.
29. The Christian Era or Gregorian Calendar shall be used for the date. Figures of the day, figures of the month, and last two figures of the year shall be expressed in Arabic numerals respectively in this order, and a period shall be added after the figures of the day and the month (for example, March 30th, 1978 shall be written as "30.03.78"). When using another era or calendar, the Christian Era or Gregorian Calendar shall be added thereto.

Form 15 (Related to Article 31)

CORRECTION(AMENDMENT)

To: Commissioner of the Patent Office

(To : Examiner of the Patent Office)

1. Identification of International Application

2. Applicant (Common Representative)

Name: _____ Signature _____ (Seal)

Address:

Country of nationality:

Country of residence:

3. Agent

Name: _____ Signature _____ (Seal)

Address:

4. Date of Invitation

5. Item to be Corrected(Amended)

6. Subject Matter of Correction(Amendment)

7. List of Attached Documents

PATENT COOPERATION TREATY

From the INTERNATIONAL SEARCHING AUTHORITY

PCT

To:

ITOH, TADAHIKO

**32ND FLOOR, YEBISU GARDEN
PLACE TOWER, 20-3, EBISU
4-CHOME, SHIBUYA-KU TOKYO
150-6032 JAPAN**

NOTIFICATION OF TRANSMITTAL OF
THE INTERNATIONAL SEARCH REPORT
OR THE DECLARATION

(PCT Rule 44.1)

Date of mailing
(day/month/year)

24.06.03

Applicant's or agent's file reference

R02239 PCT

FOR FURTHER ACTION See paragraphs 1 and 4 below

International application No.

PCT/JP03/02586

International filing date
(day/month/year)

05.03.03

Applicant

RICOH COMPANY, LTD.

1. ☒ The applicant is hereby notified that the international search report has been established and is transmitted herewith.

Filing of amendments and statement under Article 19:

The applicant is entitled, if he so wishes, to amend the claims of the international application (see Rule 46):

When? The time limit for filing such amendments is normally two months from the date of transmittal of the international search report.

Where? Directly to the International Bureau of WIPO, 34 chemin des Colombettes
1211 Geneva 20, Switzerland, Facsimile No.: (41-22) 740.14.35

For more detailed instructions, see the notes on the accompanying sheet.

2. ☐ The applicant is hereby notified that no international search report will be established and that the declaration under Article 17(2)(a) to that effect is transmitted herewith.

3. ☐ With regard to the protest against payment of (an) additional fee(s) under Rule 40.2, the applicant is notified that:

☐ the protest together with the decision thereon has been transmitted to the International Bureau together with the applicant's request to forward the texts of both the protest and the decision thereon to the designated Offices.

☐ no decision has been made yet on the protest; the applicant will be notified as soon as a decision is made.

4. Reminders:

Shortly after 18 months from the priority date, the international application will be published by the International Bureau. If the applicant wishes to avoid or postpone publication, a notice of withdrawal of the international application, or of the priority claim, must reach the International Bureau as provided in Rules 90bis.1 and 90bis.3, respectively, before the completion of the technical preparations for international publication.

Within 19 months from the priority date, but only in respect of some designated Offices, a demand for international preliminary examination must be filed if the applicant wishes to postpone the entry into the national phase until 30 months from the priority date (in some Offices even later); otherwise, the applicant must, within 20 months from the priority date, perform the prescribed acts for entry into the national phase before those designated Offices.

In respect of other designated Offices, the time limit of 30 months (or later) will apply even if no demand is filed within 19 months.

See the Annex to Form PCT/IB/301 and, for details about the applicable time limits, Office by Office, see the *PCT Applicant's Guide*, Volume II, National Chapters and the WIPO Internet site.

Name and mailing address of the ISA/JP

Japan Patent Office

3-4-3, Kasumigaseki, Chiyoda-ku, Tokyo 100-8915, Japan

Authorized officer

**Commissioner of the
Patent Office**

Telephone No. +81-3-3581-1101 Ext. 6840

5N 9057

10/506868

DT04 Rec'd PCT/PTO 03 SEP 2004

ATTENTIONS

1. An applicant should pay attention that there is an amendment period for requesting to International Bureau computing from the dispatch date of the international search report under Treaty Article 19 (1) and Regulations 46.1.
2. An applicant should pay attention to the period prescribed by Treaty Article 22 (2).
3. Demand for copy of documents

Copy of the documents described in the international search report.

An applicant can request the copy of these cited documents to the Japanese Patent Office, however, Japan Patent Information Organization also services sales of the copy of these cited documents. Those who request copying of the cited documents should pay attention to the following points.

[Application Method]

- (1) As for Patent (Utility Model, Design) Gazette, the following points shall be defined clearly.
 - ☐ Types of patent, utility model, and design
 - ☐ Fiscal year and number of publication of application or publication of unexamined application (or patent number, registration number)
 - ☐ Necessary number of paper sheets
- (2) As for documents except for the gazette, the following points are required attention.
 - ☐ Be sure to attach the copy of the international search report (which shall be returned).

[Application and Reference]

〒135-0016

4-1-7 Toyo Koto-ku, Tokyo
Sato Daiya Building
Foundation of Japan Patent Information Organization
Information Processing Department
Copy Service section
TEL: 03-3508-2313

Note: The period for requesting the copy of the documents to Japan Patent Office is set to 7 years from the international application date.

NOTES TO FORM PCT/ISA/220

These Notes are intended to give the basic instructions concerning the filing of amendments under Article 19. The Notes are based on the requirements of the Patent Cooperation Treaty, the Regulations and the Administrative Instructions under that Treaty. In case of discrepancy between these Notes and those requirements, the latter are applicable. For more detailed information, see also the *PCT Applicant's Guide*, a publication of WIPO.

In these Notes, "Article," "Rule" and "Section" refer to the provisions of the PCT, the PCT Regulations and the PCT Administrative Instructions, respectively.

INSTRUCTIONS CONCERNING AMENDMENTS UNDER ARTICLE 19

The applicant has, after having received the international search report, one opportunity to amend the claims of the international application. It should however be emphasized that, since all parts of the international application (claims, description and drawings) may be amended during the international preliminary examination procedure, there is usually no need to file amendments of the claims under Article 19 except where, e.g. the applicant wants the latter to be published for the purposes of provisional protection or has another reason for amending the claims before international publication. Furthermore, it should be emphasized that provisional protection is available in some States only.

What parts of the international application may be amended ?

Under Article 19, only the claims may be amended.

During the international phase, the claims may also be amended (or further amended) under Article 34 before the International Preliminary Examining Authority. The description and drawings may only be amended under Article 34 before the International Preliminary Examining Authority.

Upon entry into the national phase, all parts of the international application may be amended under Article 28 or, where applicable, Article 41.

When ? Within 2 months from the date of transmittal of the international search report or 16 months from the priority date, whichever time limit expires later. It should be noted, however, that the amendments will be considered as having been received on time if they are received by the International Bureau after the expiration of the applicable time limit but before the completion of the technical preparations for international publication (Rule 46.1).

Where not to file the amendments ?

The amendments may only be filed with the International Bureau and not with the receiving Office or the International Searching Authority (Rule 46.2).

Where a demand for international preliminary examination has been/is filed, see below.

How ? Either by cancelling one or more entire claims, by adding one or more new claims or by amending the text of one or more of the claims as filed.

A replacement sheet must be submitted for each sheet of the claims which, on account of an amendment or amendments, differs from the sheet originally filed.

All the claims appearing on a replacement sheet must be numbered in Arabic numerals. Where a claim is cancelled, no renumbering of the other claims is required. In all cases where claims are renumbered, they must be renumbered consecutively (Administrative Instructions, Section 205(b)).

The amendments must be made in the language in which the international application is to be published.

What documents must/may accompany the amendments ?

Letter (Section 205(b)):

The amendments must be submitted with a letter.

The letter will not be published with the international application and the amended claims. It should not be confused with the "Statement under Article 19(1)" (see below, under "Statement under Article 19(1)").

The letter must be in English or French, at the choice of the applicant. However, if the language of the international application is English, the letter must be in English; if the language of the international application is French, the letter must be in French.

NOTES TO FORM PCT/ISA/220 (continued)

The letter must indicate the differences between the claims as filed and the claims as amended. It must, in particular, indicate, in connection with each claim appearing in the international application (it being understood that identical indications concerning several claims may be grouped), whether

- (i) the claim is unchanged;
- (ii) the claim is cancelled;
- (iii) the claim is new;
- (iv) the claim replaces one or more claims as filed;
- (v) the claim is the result of the division of a claim as filed.

The following examples illustrate the manner in which amendments must be explained in the accompanying letter:

1. [Where originally there were 48 claims and after amendment of some claims there are 51]:
"Claims 1 to 29, 31, 32, 34, 35, 37 to 48 replaced by amended claims bearing the same numbers; claims 30, 33 and 36 unchanged; new claims 49 to 51 added."
2. [Where originally there were 15 claims and after amendment of all claims there are 11]:
"Claims 1 to 15 replaced by amended claims 1 to 11."
3. [Where originally there were 14 claims and the amendments consist in cancelling some claims and in adding new claims]:
"Claims 1 to 6 and 14 unchanged; claims 7 to 13 cancelled; new claims 15, 16 and 17 added." or
"Claims 7 to 13 cancelled; new claims 15, 16 and 17 added; all other claims unchanged."
4. [Where various kinds of amendments are made]:
"Claims 1-10 unchanged; claims 11 to 13, 18 and 19 cancelled; claims 14, 15 and 16 replaced by amended claim 14; claim 17 subdivided into amended claims 15, 16 and 17; new claims 20 and 21 added."

"Statement under Article 19(1)" (Rule 46.4)

The amendments may be accompanied by a statement explaining the amendments and indicating any impact that such amendments might have on the description and the drawings (which cannot be amended under Article 19(1)).

The statement will be published with the international application and the amended claims.

It must be in the language in which the international application is to be published.

It must be brief, not exceeding 500 words if in English or if translated into English.

It should not be confused with and does not replace the letter indicating the differences between the claims as filed and as amended. It must be filed on a separate sheet and must be identified as such by a heading, preferably by using the words "Statement under Article 19(1)."

It may not contain any disparaging comments on the international search report or the relevance of citations contained in that report. Reference to citations, relevant to a given claim, contained in the international search report may be made only in connection with an amendment of that claim.

Consequence if a demand for international preliminary examination has already been filed

If, at the time of filing any amendments and any accompanying statement, under Article 19, a demand for international preliminary examination has already been submitted, the applicant must preferably, at the time of filing the amendments (and any statement) with the International Bureau, also file with the International Preliminary Examining Authority a copy of such amendments (and of any statement) and, where required, a translation of such amendments for the procedure before that Authority (see Rules 55.3(a) and 62.2, first sentence). For further information, see the Notes to the demand form (PCT/IPEA/401).

Consequence with regard to translation of the international application for entry into the national phase

The applicant's attention is drawn to the fact that, upon entry into the national phase, a translation of the claims as amended under Article 19 may have to be furnished to the designated/elected Offices, instead of, or in addition to, the translation of the claims as filed.

For further details on the requirements of each designated/elected Office, see the *PCT Applicant's Guide*, Volume II.

PATENT COOPERATION TREATY

PCT

INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference R02239 PCT	FOR FURTHER ACTION	see Notification of Transmittal of International Search Report (Form PCT/ISA/220) as well as, where applicable, item 5 below.
International application No. PCT/JP 03/02586	International filing date (day/month/year) 05.03.03	(Earliest) Priority Date (day/month/year) 06.03.02
Applicant RICOH COMPANY, LTD.		

This international search report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This international search report consists of a total of 2 sheets.

☐ It is also accompanied by a copy of each prior art document cited in this report.

1. Basis of the report

a. With regard to the language, the international search was carried out on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.

☐ the international search was carried out on the basis of a translation of the international application furnished to this Authority (Rule 23.1(b)).

b. With regard to any nucleotide and/or amino acid sequence disclosed in the international application, the international search was carried out on the basis of the sequence listing:

☐ contained in the international application in written form.

☐ filed together with the international application in computer readable form.

☐ furnished subsequently to this Authority in written form.

☐ furnished subsequently to this Authority in computer readable form.

☐ the statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.

☐ the statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

2. ☐ Certain claims were found unsearchable (See Box I).

3. ☐ Unity of invention is lacking (See Box II).

4. With regard to the title,

☒ the text is approved as submitted by the applicant.

☐ the text has been established by this Authority to read as follows:

5. With regard to the abstract,

☒ the text is approved as submitted by the applicant.

☐ the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box III. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

6. The figure of the drawings to be published with the abstract is Figure No. 1

☐ as suggested by the applicant.

☐ None of the figures.

☒ because the applicant failed to suggest a figure.

☐ because this figure better characterizes the invention.

INTERNATIONAL SEARCH REPORT

International application No.

PCT/JP03/02586

A. CLASSIFICATION OF SUBJECT MATTER

Int.Cl⁷ G11C 11/40

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

Int.Cl⁷ G11C11/40-11/4099, H04N1/40, H04N1/46

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched
 Japanese Utility Model Gazette 1926-1996, Japanese Publication of Unexamined Utility Model Applications 1971-2001, Japanese Registered Utility Model Gazette 1994-2001, Japanese Gazette Containing the Utility Model 1996-2001

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	JP 10-117292 A (HEWLETT-PACKARD CO) 1998.05.06, WHOLE DOCUMENT, WHOLE FIGURE & EP 822708 A1 & <u>US 5717507 A</u> & EP 822708 B1 & DE 69711781 E	1-12
Y	JP 2001-93281 A (SANYO ELECTRIC CO LTD) 2001.04.06, WHOLE DOCUMENT, FIG. 4-10 (NONE FAMILY)	1-12
Y	JP 5-113928 A (FUJI ELECTRIC CO LTD) 1993.05.07, WHOLE DOCUMENT, WHOLE FIGURE (NONE FAMILY)	2, 6, 10
Y	JP 10-320973 A (NEC CORP) 1998.12.04, WHOLE DOCUMENT, WHOLE FIGURE & JP 3129235 B2	4, 8, 12
EA	JP 2003-101806 A (CANON KK) 2003, 04, 04, WHOLE DOCUMENT, WHOLE FIGURE (NONE FAMILY)	1-12

☐ Further documents are listed in the continuation of Box C.☐ See patent family annex.

* Special categories of cited documents:

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier application or patent but published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

"&" document member of the same patent family

Date of the actual completion of the international search

13.06.03

Date of mailing of the international search report

24.06.03

Name and mailing address of the ISA/JP

Japan Patent Office

3-4-3, Kasumigaseki, Chiyoda-ku, Tokyo 100-8915, Japan

Authorized officer

HIROMITSU SUHARA

Seal

5N

9057

Telephone No. +81-3-3581-1101 Ext. 6840

The demand must be filed directly with the competent International Preliminary Examining Authority or, if two or more Authorities are competent, with the one chosen by the applicant. The full name or two-letter code of that Authority may be indicated by the applicant on the line below:

IPEA/ JP

COPY

PCT

CHAPTER II

DEMAND

under Article 31 of the Patent Cooperation Treaty:

The undersigned requests that the international application specified below be the subject of international preliminary examination according to the Patent Cooperation Treaty and hereby elects all eligible States (except where otherwise indicated).

For International Preliminary Examining Authority use only		
Identification of IPEA		Date of receipt of DEMAND
Box No. I IDENTIFICATION OF THE INTERNATIONAL APPLICATION		Applicant's or agent's file reference R02239 PCT
International application No. PCT/JP03/02586	International filing date (day/month/year) 05.03.03	(Earliest) Priority date (day/month/year) 06.03.02
Title of invention SEMICONDUCTOR STORING DEVICE		
Box No. II APPLICANT(S)		
Name and address: (Family name followed by given name; for a legal entity, full official designation. The address must include postal code and name of country.) RICOH COMPANY, LTD. 3-6, Nakamagome 1-chome, Ohta-ku, Tokyo 143-8555 Japan		Telephone No. 03-3777-8111 Facsimile No. 03-5742-5429 Teleprinter No. Applicant's registration No. with the Office
State (that is, country) of nationality: Japan		State (that is, country) of residence: Japan
Name and address: (Family name followed by given name; for a legal entity, full official designation. The address must include postal code and name of country.) HIRAI, Takayasu 8-22-102, Kouda 3-chome, Ikeda-shi, Osaka 563-0043 Japan		
State (that is, country) of nationality: Japan		State (that is, country) of residence: Japan
Name and address: (Family name followed by given name; for a legal entity, full official designation. The address must include postal code and name of country.)		
State (that is, country) of nationality:		State (that is, country) of residence:
<input type="checkbox"/> Further applicants are indicated on a continuation sheet.		

Box No. III AGENT OR COMMON REPRESENTATIVE; OR ADDRESS FOR CORRESPONDENCEThe following person is ☒ agent ☐ common representative.and ☒ has been appointed earlier and represents the applicant(s) also for international preliminary examination.☐ is hereby appointed and any earlier appointment of (an) agent(s)/common representative is hereby revoked.☐ is hereby appointed, specifically for the procedure before the International Preliminary Examining Authority, in addition to the agent(s)/common representative appointed earlier.Name and address: (Family name followed by given name; for a legal entity, full official designation.
The address must include postal code and name of country.)

ITOH, Tadahiko
 32nd Floor, Yebisu Garden Place Tower,
 20-3, Ebisu 4-chome, Shibuya-ku, Tokyo 150-6032 Japan

Telephone No.

03-5424-2511

Facsimile No.

03-5424-2525

Teleprinter No.

Agent's registration No. with the Office

☐ Address for correspondence: Mark this check-box where no agent or common representative is/has been appointed and the space above is used instead to indicate a special address to which correspondence should be sent.**Box No. IV BASIS FOR INTERNATIONAL PRELIMINARY EXAMINATION****Statement concerning amendments:***

1. The applicant wishes the international preliminary examination to start on the basis of:

☐ the international application as originally filedthe description ☒ as originally filed☐ as amended under Article 34the claims ☐ as originally filed☒ as amended under Article 19 (together with any accompanying statement)☐ as amended under Article 34the drawings ☒ as originally filed☐ as amended under Article 342. ☐ The applicant wishes any amendment to the claims under Article 19 to be considered as reversed.3. ☐ The applicant wishes the start of the international preliminary examination to be postponed until the expiration of 20 months from the priority date unless the International Preliminary Examining Authority receives a copy of any amendments made under Article 19 or a notice from the applicant that he does not wish to make such amendments (Rule 69.1(d)). (This check-box may be marked only where the time limit under Article 19 has not yet expired.)

* Where no check-box is marked, international preliminary examination will start on the basis of the international application as originally filed or, where a copy of amendments to the claims under Article 19 and/or amendments of the international application under Article 34 are received by the International Preliminary Examining Authority before it has begun to draw up a written opinion or the international preliminary examination report, as so amended.

Language for the purposes of international preliminary examination: English☒ which is the language in which the international application was filed.☐ which is the language of a translation furnished for the purposes of international search.☐ which is the language of publication of the international application.☐ which is the language of the translation (to be) furnished for the purposes of international preliminary examination.**Box No. V ELECTION OF STATES**

The applicant hereby elects all eligible States (that is, all States which have been designated and which are bound by Chapter II of the PCT)

excluding the following States which the applicant wishes not to elect:

Box No. VI CHECK LIST

The demand is accompanied by the following elements, in the language referred to in Box No. IV, for the purposes of international preliminary examination:

- | | | |
|--------------------------------------------------------------------------|---|----------|
| 1. translation of international application | : | sheets |
| 2. amendments under Article 34 | : | sheets |
| 3. copy (or, where required, translation) of amendments under Article 19 | : | 8 sheets |
| 4. copy (or, where required, translation) of statement under Article 19 | : | sheets |
| 5. letter | : | 1 sheets |
| 6. other (specify) | : | sheets |

For International Preliminary Examining Authority use only

received	not received
<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>

The demand is also accompanied by the item(s) marked below:

- | | |
|------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------|
| 1. <input checked="" type="checkbox"/> fee calculation sheet | 5. <input type="checkbox"/> statement explaining lack of signature |
| 2. <input type="checkbox"/> original separate power of attorney | 6. <input type="checkbox"/> sequence listing in computer readable form |
| 3. <input type="checkbox"/> original general power of attorney | 7. <input checked="" type="checkbox"/> other (specify): revenue stamps of IP fee, certificate of payment |
| 4. <input type="checkbox"/> copy of general power of attorney; reference number, if any: | |

Box No. VII SIGNATURE OF APPLICANT, AGENT OR COMMON REPRESENTATIVE

Next to each signature, indicate the name of the person signing and the capacity in which the person signs (if such capacity is not obvious from reading the demand).

ITOH, Tadahiko



For International Preliminary Examining Authority use only

1. Date of actual receipt of DEMAND:

2. Adjusted date of receipt of demand due to CORRECTIONS under Rule 60.1(b):

3. ☐ The date of receipt of the demand is AFTER the expiration of 19 months from the priority date and item 4 or 5, below, does not apply.

☐ The applicant has been informed accordingly.

4. ☐ The date of receipt of the demand is WITHIN the period of 19 months from the priority date as extended by virtue of Rule 80.5.

5. ☐ Although the date of receipt of the demand is after the expiration of 19 months from the priority date, the delay in arrival is EXCUSED pursuant to Rule 82.

For International Bureau use only

Demand received from IPEA on:

COPY

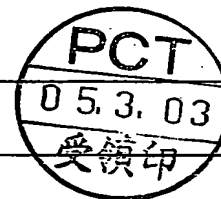
1/4

PCT REQUEST

R02239 PCT

Original (for SUBMISSION) - printed on 05.03.2003 10:29:34 AM

0	For receiving Office use only	
0-1	International Application No.	
0-2	International Filing Date	
0-3	Name of receiving Office and "PCT International Application"	
0-4	Form - PCT/RO/101 PCT Request	
0-4-1	Prepared using	PCT-EASY Version 2.92 (updated 01.01.2003)
0-5	Petition The undersigned requests that the present international application be processed according to the Patent Cooperation Treaty	
0-6	Receiving Office (specified by the applicant)	Japan Patent Office (RO/JP)
0-7	Applicant's or agent's file reference	R02239 PCT
I	Title of invention:	SEMICONDUCTOR STORING DEVICE
II	Applicant	
II-1	This person is:	applicant only
II-2	Applicant for	all designated States except US
II-4	Name:	RICOH COMPANY, LTD.
II-5	Address:	3-6, Nakamagome 1-chome, Ohta-ku, Tokyo 143-8555 Japan
II-6	State of nationality	JP
II-7	State of residence	JP
II-8	Telephone No.	03-3777-8111
II-9	Facsimile No.	03-5742-5429
III-1	Applicant and/or inventor	
III-1-1	This person is:	applicant and inventor
III-1-2	Applicant for	US only
III-1-4	Name (LAST, First)	HIRAI, Takayasu
III-1-5	Address:	8-22-102, Kouda 3-chome, Ikeda-shi, Osaka 563-0043 Japan
III-1-6	State of nationality	JP
III-1-7	State of residence	JP



PCT REQUEST

R02239 PCT


Original (for SUBMISSION) - printed on 05.03.2003 10:29:34 AM

IV-1	Agent or common representative; or address for correspondence The person identified below is hereby/has been appointed to act on behalf of the applicant(s) before the competent International Authorities as:	agent
IV-1-1	Name	ITOH, Tadahiko
IV-1-2	Address:	32nd Floor, Yebisu Garden Place Tower, 20-3, Ebisu 4-chome, Shibuya-ku, Tokyo 150-6032 Japan
IV-1-3	Telephone No.	03-5424-2511
IV-1-4	Facsimile No.	03-5424-2525
V	Designation of States	
V-1	Regional Patent (other kinds of protection or treatment, if any, are specified between parentheses after the designation(s) concerned)	--
V-2	National Patent (other kinds of protection or treatment, if any, are specified between parentheses after the designation(s) concerned)	CN KR US
V-5	Precautionary Designation Statement In addition to the designations made under items V-1, V-2 and V-3, the applicant also makes under Rule 4.9(b) all designations which would be permitted under the PCT except any designation(s) of the State(s) indicated under item V-6 below. The applicant declares that those additional designations are subject to confirmation and that any designation which is not confirmed before the expiration of 15 months from the priority date is to be regarded as withdrawn by the applicant at the expiration of that time limit.	
V-6	Exclusion(s) from precautionary designations	NONE
VI-1	Priority claim of earlier national application	
VI-1-1	Filing date	06 March 2002 (06.03.2002)
VI-1-2	Number	Patent Application 2002-060640
VI-1-3	Country	JP
VI-2	Priority document request The receiving Office is requested to prepare and transmit to the International Bureau a certified copy of the earlier application(s) identified above as item(s):	VI-1
VII-1	International Searching Authority Chosen	Japan Patent Office (JPO) (ISA/JP)

PCT REQUEST

R02239 PCT

Original (for SUBMISSION) - printed on 05.03.2003 10:29:34 AM

VIII	Declarations	Number of declarations	
VIII-1	Declaration as to the identity of the inventor	-	
VIII-2	Declaration as to the applicant's entitlement, as at the international filing date, to apply for and be granted a patent	-	
VIII-3	Declaration as to the applicant's entitlement, as at the international filing date, to claim the priority of the earlier application	-	
VIII-4	Declaration of inventorship (only for the purposes of the designation of the United States of America)	-	
VIII-5	Declaration as to non-prejudicial disclosures or exceptions to lack of novelty	-	
IX	Check list	number of sheets	electronic file(s) attached
IX-1	Request (including declaration sheets)	4	-
IX-2	Description	35	-
IX-3	Claims	9	-
IX-4	Abstract	1	EZABST00.TXT
IX-5	Drawings	21	-
IX-7	TOTAL	70	
	Accompanying items	paper document(s) attached	electronic file(s) attached
IX-8	Fee calculation sheet	✓	-
IX-17	PCT-EASY diskette	-	Diskette
IX-18	Other (specified):	Revenue stamps of transmittal and search fee for receiving office	-
IX-18	Other (specified):	Submission of certificate of payment for international fee	-
IX-19	Figure of the drawings which should accompany the abstract		
IX-20	Language of filing of the international application	English	
X-1	Signature of applicant, agent or common representative		
X-1-1	Name		
		ITOH, Tadahiko	

FOR RECEIVING OFFICE USE ONLY

10-1	Date of actual receipt of the purported international application	
10-2	Drawings:	
10-2-1	Received	
10-2-2	Not received	

PCT REQUEST

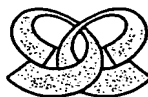
R02239 PCT

Original (for SUBMISSION) - printed on 05.03.2003 10:29:34 AM

10-3	Corrected date of actual receipt due to later but timely received papers or drawings completing the purported international application	
10-4	Date of timely receipt of the required corrections under PCT Article 11(2)	
10-5	International Searching Authority	ISA/JP
10-6	Transmittal of search copy delayed until search fee is paid	

FOR INTERNATIONAL BUREAU USE ONLY

11-1	Date of receipt of the record copy by the International Bureau	
------	----------------------------------------------------------------	--



10/506868

DT04 Rec'd PCT/PTO 03 SEP 2004

FROM

I T O H INTERNATIONAL PATENT OFFICE

32nd FLOOR, YEBISU GARDEN PLACE TOWER
20-3 EBISU 4-CHOME, SHIBUYA-KU
TOKYO 150-6032, JAPAN

FACSIMILE: 3-5424-2527
2525
TELEPHONE: 3-5424-2511

TO

August 20, 2003

Number of pages 9
(Including this page)

PCT Operations Department
INTERNATIONAL BUREAU OF WIPO
34, chemin des Colombettes
1211 GENEVA 20
SWITZERLAND

Our Ref.: R02239 PCT

"Amendment of the claims under Article 19(1) (Rule 46)"

Re: International Application No. PCT/JP03/02586
International Filing Date: 05.03.03 (05. March 2003)
Applicant: RICOH COMPANY, LTD.
Agent: ITOH Tadahiko

Dear Sir,

The applicant, who received the International Search Report relating to the above-identified International Application with a dispatch date of June 24, 2003 hereby files an amendment under Article 19(1) as in the attached sheets.

The applicant hereby cancels (sheet Nos. 42, 43 and 44) entirely, because the intended amendment results in the cancellation of all the claims therein. Thus claims 1 and 5 are amended, claims 9, 10, 11 and 12 are canceled and claims 2, 3, 4, 6, 7 and 8 are retained unchanged.

Please kindly acknowledge safe receipt of this facsimile letter.

Very truly yours,

Tadahiko Itoh

Attachment:

Substitute sheets: (Nos. 36-41)